

EMULSIBLE POLYOLEFIN WAX

This application is a DIV of 09/067,355 filed 04/27/1998 now US Patent 6,362,280
FIELD OF INVENTION

5 The present invention relates to a functionalized polyolefin wax. More specifically, this invention relates to an emulsible polyolefin wax from which high clarity emulsions can be prepared.

P D F O R M A T

BACKGROUND OF THE INVENTION

10 Emulsible polyolefin waxes are well known and are commonly used in glossy, protective substrates such as floor polish and the like. As used herein, the term "wax" refers to a substance having the following properties: (a) solid at room temperature; (b) low melting point; (c) solidifies when cooled; (d) low viscosity at just above the melting point; and (e) insoluble in water. A "polyolefin wax" as used herein is a substance having the aforementioned properties and is prepared either 15 from thermal or chemical degradation of a polyolefin or from partial polymerization of olefins.

20 In floor polish and other conventional coating applications, the polyolefin wax is emulsified. To this end, the wax must be functionalized to make it emulsible in an aqueous medium. It is also highly desirable that the polyolefin wax emulsion be clear and colorless so as not to obscure or otherwise tinge the surface which it coats and protects.

25 Unfortunately, emulsions of conventional polyolefin waxes tend to be low in clarity and high in color. This is due, in part, to the general lack of colorless polyolefin wax. The problem is compounded by the process of functionalizing which tends to color and reduce emulsion clarity of the polyolefin wax. Therefore, there is a need for an emulsible polyolefin wax that is not only highly emulsible, but also clear and colorless. The present invention fulfills this need among others.